Protective & Marine Coatings

DURA-PLATE® MT
MOISTURE TOLERANT EPOXY

PART A	B62-215	SERIES
PART B	B62V215	HARDENER

Revised 9/09

PRODUCT INFORMATION

4.47

PRODUCT DESCRIPTION

Dura-Plate MT is a high solids, two component, epoxy coating designed to be applied directly on damp or dry steel surfaces.

- Provides performance comparable to MIL-P-23236C, Type VII, Class 15b and 17
- Can be applied directly on damp or dry steel surfaces
- No dew point restrictions
- Low VOC
- Low odor
- Outstanding application properties

PRODUCT CHARACTERISTICS

Finish:	Gloss
Color:	Red Oxide,Haze Gray, Off White
Volume Solids:	93% ± 2%, mixed
Weight Solids:	93% ± 2%, mixed
VOC (EPA Method 24):	<125 g/L; 1.04 lb/gal
Mix Ratio:	4:1 by volume

Recommended Spreading Rate per coat:

	Minimum		Maximum	
Wet mils (microns)	**6.5**	162	**8.5**	212
Dry mils (microns)	**6.0**	150	**8.0**	200
~Coverage sq ft/gal (m^2/L)	**180**	4.4	**250**	6.1
Theoretical coverage **sq ft/gal** (m^2/L) @ 1 mil / 25 microns dft	**1488**	36.4		

NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

Drying Schedule @ 8.0 mils wet (200 microns):

	@ 40°F/4.5°C	@ 55°F/10°C	@ 77°F/25°C *50% RH*	@ 100°F/38°C
To touch:	20 hours	14 hours	2 hours	90 minutes
To handle:	60 hours	28 hours	12 hours	5 hours
To recoat:				
minimum:	60 hours	28 hours	12 hours	5 hours
maximum:	14 days	14 days	14 days	14 days
Cure to service:	14 days	10 days	7 days	5 days

If maximum recoat time is exceeded, abrade surface before recoating.
Drying time is temperature, humidity, and film thickness dependent.

Pot Life (1 gal):	3 hours	45 minutes	15 minutes
Sweat-in-Time:	None required @ 77°F (25°C)		

Shelf Life:	12 months, unopened Store indoors at 40°F (4.5°C) to 100°F (38°C).
Flash Point:	140°F (60°C), PMCC, mixed
Reduction:	Not recommended
Clean Up:	MEK (R6K10) or R7K104

RECOMMENDED USES

For use over most steel substrates, such as:

- Ships, offshore and marine structures
- Bilge areas
- Oil and fuel storage tank interiors
- Pulp and paper mills
- Water treatment plants

PERFORMANCE CHARACTERISTICS

Substrate*: Steel
Surface Preparation*: SSPC-SP10
System Tested*:
1 ct. Dura-Plate MT @ 6.0-8.0 mils (150-200 microns) dft
1 ct. Dura-Plate UHS Topcoat @ 10.0-12.0 mils (250-300 microns) dft
*unless otherwise noted below

Test Name	Test Method	Results
Adhesion	ASTM D4541	1420 psi
Dry Heat Resistance (Dura-Plate MT only)	ASTM D2485, Method A	250°F (121°C)
Flexibility (Dura-Plate MT only)	ASTM D522	Passes, 1/2"
Moisture Condensation Resistance	ASTM D4585, 100°F (38°C), 500 hours	Rating 10 per ASTM D610 for rusting; Rating 10 per ASTM D714 for blistering

IMMERSION
(Ambient temperature with Dura-Plate UHS topcoat)

Ballast tank mix	Recommended
Crude oil	Recommended
Diesel fuel	Recommended
Ethanol	Recommended
Fresh water	Recommended
Fuel oil	Recommended
Gasohol	Recommended
Gasoline	Recommended
Methanol, methanol blends	Not recommended
MTBE	Recommended
Sea Water	Recommended

Epoxy coatings may darken or yellow after application and curing.

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RECOMMENDED SYSTEMS

		Dry Film Thickness / ct. Mils	(Microns)
Steel:			
1 ct.	Dura-Plate MT	6.0-8.0	(150-200)
1 ct..	Dura-Plate UHS Topcoat	10.0-12.0	(250-300)
Steel:			
1 ct.	Dura-Plate MT	6.0-8.0	(150-200)
1 ct.	Nova-Plate UHS	10.0-16.0	(250-400)
Steel:			
1 ct.	Dura-Plate MT	6.0-8.0	(150-200)
1 ct.	Dura-Plate 235	4.0-8.0	(100-200)
Steel:			
2 cts.	Dura-Plate MT	6.0-8.0	(150-200)

The systems listed above are representative of the product's use, other systems may be appropriate.

DISCLAIMER

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SURFACE PREPARATION

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

Refer to product Application Bulletin for detailed surface preparation information.

Minimum recommended surface preparation:

Iron & Steel:

Atmospheric: SSPC-SP12NACE 5, WJ-4 (with existing profile) or SSPC-SP3 or SSPC-SP2

Immersion: SSPC-SP10/NACE 2, 2-3 mil (50-75 micron) profile or SSPC-SP1 NACE 5, WJ-2/SC-2 (with existing profile)

Surface Preparation Standards

	Condition of Surface	ISO 8501-1 BS7079:A1	Swedish Std. SIS055900	SSPC	NACE
White Metal		Sa 3	Sa 3	SP 5	1
Near White Metal		Sa 2.5	Sa 2.5	SP 10	2
Commercial Blast		Sa 2	Sa 2	SP 6	3
Brush-Off Blast		Sa 1	Sa 1	SP 7	4
Hand Tool Cleaning	Rusted	C St 2	C St 2	SP 2	-
	Pitted & Rusted	D St 2	D St 2	SP 2	-
Power Tool Cleaning	Rusted	C St 3	C St 3	SP 3	-
	Pitted & Rusted	D St 3	D St 3	SP 3	-

TINTING

Do not tint.

APPLICATION CONDITIONS

Temperature: 40°F (4.5°C) minimum, 110°F (43°C) maximum (air, surface and material)

Relative Humidity: 40% minimum

Refer to product Application Bulletin for detailed application information.

ORDERING INFORMATION

Packaging:
Part A: 4 gallons in a 5 gallon container
Part B: 1 gallon in a 1 gallon container

Weight: 12.54 ± 0.3 lb/gal ; 1.5 Kg/L, mixed

SAFETY PRECAUTIONS

Refer to the MSDS sheet before use.

Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.

WARRANTY

The Sherwin-Williams Company warrants our products to be free of manufacturing defects in accord with applicable Sherwin-Williams quality control procedures. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by Sherwin-Williams. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY SHERWIN-WILLIAMS, EXPRESSED OR IMPLIED, STATUTORY, BY OPERATION OF LAW OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

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APPLICATION BULLETIN

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SURFACE PREPARATIONS

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

General Surface Preparation
Surface must be clean and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure good adhesion.

Iron & Steel (atmospheric service)
Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. Minimum surface preparation is Ultra High Pressure Water Jetting for Steel per SSPC-SP12/NACE 5, WJ-4 (with existing profile) or SSPC-SP3 Power Tool Clean or SSPC-SP2 Hand Tool Clean. For better performance, use Commercial Blast Cleaning per SSPC-SP6/NACE 3. Blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (2 mils / 50 microns). Coat any bare steel the same day as it is cleaned or before flash rusting occurs.

Iron & Steel, Immersion Service:
Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. Minimum surface preparation is Near White Metal Blast Cleaning per SSPC-SP10 or SSPC-SP12/NACE No. 5. For SSPC-SP10, blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (2 mils / 50 microns). For SSPC-SP12/NACE No. 5, all surfaces to be coated shall be cleaned in accordance with WJ-2/SC-2 standards. Pre-existing profile should be approximately 2 mils / 50 microns. Light rust bloom is allowed. Remove all weld spatter and round all sharp edges. Prime any bare steel the same day as it is cleaned.

Surface Preparation Standards

	Condition of Surface	ISO 8501-1 BS7079:A1	Swedish Std. SIS055900	SSPC	NACE
White Metal		Sa 3	Sa 3	SP 5	1
Near White Metal		Sa 2.5	Sa 2.5	SP 10	2
Commercial Blast		Sa 2	Sa 2	SP 6	3
Brush-Off Blast		Sa 1	Sa 1	SP 7	4
Hand Tool Cleaning	Rusted	C St 2	C St 2	SP 2	-
	Pitted & Rusted	D St 2	D St 2	SP 2	-
Power Tool Cleaning	Rusted	C St 3	C St 3	SP 3	-
	Pitted & Rusted	D St 3	D St 3	SP 3	-

APPLICATION CONDITIONS

Temperature: 40°F (4.5°C) minimum, 110°F (43°C) maximum (air, surface and material)

Relative Humidity: 40% minimum

APPLICATION EQUIPMENT

The following is a guide. Changes in pressures and tip sizes may be needed for proper spray characteristics. Always purge spray equipment before use with listed reducer. Any reduction must be compliant with existing VOC regulations and compatible with the existing environmental and application conditions.

Reduction .....Not recommended

Clean Up .....MEK (R6K10) or R7K104

Airless Spray
Pressure.....3000 psi
Hose.....3/8" ID
Tip.....017" - .021"
Filter.....60 mesh

Brush (for stripe coat and repair only)
Brush.....Natural Bristle

Roller (for stripe coat and repair only)
Cover .....3/8" woven with solvent resistant core

If specific application equipment is not listed above, equivalent equipment may be substituted.

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APPLICATION PROCEDURES

Surface preparation must be completed as indicated.

Mix contents of each component thoroughly using low speed power agitation. Make certain no pigment remains on the bottom of the can. Then combine 4 parts by volume of Part A with 1 part by volume of Part B. Thoroughly agitate the mixture with power agitation. Allow the material to sweat-in as indicated prior to application. Re-stir before using.

If reducer solvent is used, add only after both components have been thoroughly mixed, after sweat-in.

Apply paint at the recommended film thickness and spreading rate as indicated below:

Recommended Spreading Rate per coat:

	Minimum		Maximum	
Wet mils (microns)	**6.5**	162	**8.5**	212
Dry mils (microns)	**6.0**	150	**8.0**	200
~Coverage sq ft/gal (m^2/L)	**180**	4.4	**250**	6.1
Theoretical coverage **sq ft/gal** (m^2/L) @ 1 mil / 25 microns dft	**1488**	36.4		

NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

Drying Schedule @ 8.0 mils wet (200 microns):

	@ 40°F/4.5°C	@ 55°F/10°C	@ 77°F/25°C *50% RH*	@ 100°F/38°C
To touch:	20 hours	14 hours	2 hours	90 minutes
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To recoat:				
minimum:	60 hours	28 hours	12 hours	5 hours
maximum:	14 days	14 days	14 days	14 days
Cure to service:	14 days	10 days	7 days	5 days

If maximum recoat time is exceeded, abrade surface before recoating.

Drying time is temperature, humidity, and film thickness dependent.

Pot Life (1 gal):	3 hours	45 minutes	15 minutes
Sweat-in-Time:	None required @ 77°F (25°C)		

Application of coating above maximum or below minimum recommended spreading rate may adversely affect coating performance.

CLEAN UP INSTRUCTIONS

Clean spills and spatters immediately with MEK (R6K10) or R7K104. Clean tools immediately after use with MEK (R6K10) or R7K104. Follow manufacturer's safety recommendations when using any solvent.

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PERFORMANCE TIPS

Stripe coat crevices, welds, and sharp angles to prevent early failure in these areas.

When using spray application, use a 50% overlap with each pass of the gun to avoid holidays, bare areas, and pinholes. If necessary, cross spray at a right angle

Spreading rates are calculated on volume solids and do not include an application loss factor due to surface profile, roughness or porosity of the surface, skill and technique of the applicator, method of application, various surface irregularities, material lost during mixing, spillage, overthinning, climatic conditions, and excessive film build.

Reduction of material is not recommended.

Do not mix previously catalyzed material with new.

Do not apply the material beyond recommended pot life.

Excessive film build, poor ventilation, and cool temperatures may cause solvent entrapment and premature coating failure.

For Immersion Service: (if required) Holiday test in accordance with ASTM D5162 for steel, or ASTM D4787 for concrete.

Not recommended for immersion service when tinted.

Under certain conditions of drying and curing (high humidity/condensation) an amine blush may occur on the surface. Remove by solvent wiping with MEK before topcoating.

Refer to Product Information sheet for additional performance characteristics and properties.

SAFETY PRECAUTIONS

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